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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,971	11/10/1999	CHENGIUN JULIAN CHEN	YO999-426	8698
7590	01/13/2004		EXAMINER	
			EDOUARD, PATRICK NESTOR	
			ART UNIT	PAPER NUMBER
			2654	
DATE MAILED: 01/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/437,971</b>	Applicant(s) <b>CHEN ET AL</b>
	Examiner <b>Patrick N.Edouard</b>	Art Unit <b>2654</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on Oct 2, 2003.
- 2a)  This action is FINAL.      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.
- Disposition of Claims**
- 4)  Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-29 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 10/2/03 is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some\* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a)  The translation of the foreign language provisional application has been received.
- 15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

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### **DETAILED ACTION**

1. This Office Action is in response to communication filed 10/2/03 (paper #4). Claims 1-20 and new claims 21-29 are pending.

#### ***Response to Arguments***

2. Applicant's arguments filed 10/3/03 have been fully considered but they are not persuasive because of the following reasons:

In response to Applicant's argument that Ellozy teaches a word based indexing not semantic unit based indexing units. The examiner cannot concur. It is well known in the art that a semantic unit could be a word, a syllable or a morpheme. Therefore, given the broadest interpretation of the claims, Ellozy word based indexing reads on semantic unit. Also, the examiner relied upon the Background of the invention that describes the phonetic based indexing to conclude that one of ordinary skill in the art at the time the invention was made would have found it obvious to recognize that the word based audio indexing of Ellozy could be a syllable or a morpheme based audio indexing because it would provide a more efficient indexing method capable of indexing different languages that require less space of the memory allocation. Furthermore, the examiner relied of Nanjo for teaching indexing and searching of text in compound-languages such as Chinese language. Lastly, the examiner relied on Ellozy alone for teaching the semantic units are indexed according to speaker attributes since this feature is a well known feature in the art. In view of all the evidence, the examiner maintains his rejection.

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***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

a person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5-7, 15 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellozy et al (5,649,060).

As per claim 1 and 19-20 Ellozy et al teach a method of processing audio-based data associated with particular language, the method comprising (figure 3):

“Storing the audio-based data”( his Audio/Video recording 12, col. 5, lines 5-20);

“Generating a textual representation of the audio-based data the textual representation being in the form of one or more semantic units corresponding to the audio-based data”( his Automatic Speech Recognizer 31 and his Decoded Text 38; col. 5, lines 30-35); and

“indexing the one or more semantic units and storing the one or more indexed semantic units for use in searching the stored audio-based data in response to a user query”( his indexing 60, col. 7, lines 13-20).

As per claim 5, Ellozy et al teach wherein the generating step comprises decoding the audio-based data in accordance with a speech recognition (figure 3, his automatic Speech Recognizer 34, col. Col. 5, line 30-32).

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As per claim 6, Ellozy et al teach wherein the speech recognition system employs a semantic unit based language model (col. 6, lines 47-65, his word language model ).

As per claim 7, Ellozy et al teach wherein the indexing step comprises time stamping the one or more semantic units"(col. 5, lines 47 to col. 6, line 30, his time stamping of the indexed words).

As per claim 15, Ellozy et teach wherein the one or more semantic units are indexed according to at least one of when the audio based was produced and where the audio based data was produced ( figure 3, his time alignment 42).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,0600 in view of the Background of the invention.

It is noted that Ellozy teach a word based audio indexing but does not explicitly teach wherein the semantic unit is a syllable, wherein the syllable is a phonetically based syllable" and wherein the semantic unit is a morpheme. However, this features are well known in the art as

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evidenced by the Background of the invention which teaches a phone based indexing method and also teaches that a morpheme could be a word. Therefore, one having ordinary skill in the art at the time the invention was made would have it obvious to recognize that the word based audio indexing of Ellozy could be a syllable or a morpheme based audio indexing because it would provide a more efficient indexing method.

7. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,640,060) in view of Nanjo et al (5,778,361).

As per claims 11-13, it is noted Ellozy teaches the claimed invention but does not explicitly teach wherein the particular language is Chinese. However, this feature is well known in the art as evidenced by Nanjo et al who teach a system for fast indexing and searching in compound word languages such as Chinese at the abstract. Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to recognize the language used in Ellozy's system could be Chinese as taught by Nanjo because Nanjo teaches the benefit of using an improved method for indexing and searching Chinese language.

8. Claim 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,060) in view of Orsolini et al (5,794,249)

Is it noted that Ellozy et al teach the automatic indexing and aligning of audio and text using speech recognition but does not explicitly teach :wherein the searching step comprises:

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“Processing the user query to generate one or more semantic units representing the information that the user seek to retrieve”; “Searching the one or more indexed semantic units to find a substantial match with the one or more semantic units associated with the user query”; and “Retrieving one or more segments of the audio-based data using the one or more indexed semantic units that match the one or more semantic units associated with the user query”.

However these features are well known in the art as evidenced by Orsolini et al who teach the searching step comprises:

“Processing the user query to generate one or more semantic units representing the information that the user seek to retrieve”; col. 1, line 65 to col. 2, line 9, the user choose a keyword and used to query the text balanced tree for each recording, col. 5, lines 28-43,);

“Searching the one or more indexed semantic units to find a substantial match with the one or more semantic units associated with the user query”; ( col. 2, lines 3-9; col. 5, lines 45-55); and

“Retrieving one or more segments of the audio-based data using the one or more indexed semantic units that match the one or more semantic units associated with the user query” ( col. 2, lines 10-24, col. 5, lines 45-61).

Therefore, one having ordinary skill in the art at the time invention was made would have found it obvious to incorporate into Ellozy’s system a searching system as taught by Orsolini et al because it would provide for efficient content searching of recordings.

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As per claim 9, Orsolini et al teach wherein the searching step further comprises presenting the retrieved data to the user"( col. 5, lines 45-48).

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,060).

It is noted that Ellozy et al teach the claimed invention but does not explicitly teach the one or more semantic units are indexed according to speaker attributes. However, this feature is well known in the art. Therefore, one having ordinary skill in the art at the time invention was made would have found it obvious to recognize that the semantics units in Ellozy's system are indexed according to speaker attributes because it would provide an efficient method of identifying the corresponding speakers.

10. Claims 21-29 are the same in scope and content as claims 1-19 above and therefore are rejected under the same rationale.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

a shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

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1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231 or faxed to:

(703) 308-9051, (for formal communications intended for entry) Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or  
"DRAFT")

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington,  
VA., Sixth Floor (Receptionist).

6. Any inquiry concerning this communication or earlier communications from the examiner  
should be directed to Patrick N. Edouard whose telephone number is (703) 308-6725. The  
examiner can normally be reached on Tuesday-Friday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,  
Richemond Dorvil can be reached on (703) 305-9645.

The facsimile phone number for this Art Unit is (703) 305-9508. Alternatively, facsimile messages  
may be sent directly to (703) 305-9644 where they will be stored in the examiner's voice mailbox

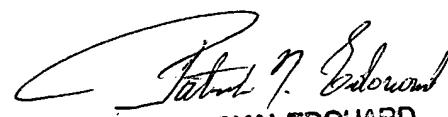
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(telling the examiner that a fax was received) and be automatically printed (i.e. - no delay by the examiner).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Patrick N. Edouard

January 10, 2004



PATRICK N. EDOUARD  
PATENT EXAMINER